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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,076	03/11/2004	Toshimasa Hangai	03-71 PUS	4392
21254	7590	06/23/2005	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			LAM, CATHY FONG FONG	
			ART UNIT	PAPER NUMBER
			1775	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/797,076	HANGAI ET AL.	
	Examiner	Art Unit	
	Cathy Lam	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on March 23rd 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 13-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

In view of the amendment and remarks filed on March 23rd 2005, the previous art rejections have been withdrawn, but the pending claims are continued to be unpatentable as following:

Claim Objections

1. Claims 21 and 27 are objected to because of the following informalities: the terms "polyethelketone" and "polysulphon" are believed in typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. Claims 25-27 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gunten et al (US 6140575).

It is noted by the Examiner that some claims are drafted in a product by process format. It is the product itself which must be new and unobvious. Unless some unexpected result is shown that occurs due to Applicant's specific process(es), different processing steps are not patentably distinguishing for claims to an article.

Gunten discloses an enclosure structure that is used for circuit assembly (132). The enclosure structure (11) shaped to contain the circuit assembly (col 3 L 13-16 & col 4 L 26-28 & Fig. 1B).

Gunten teaches that the enclosure is formed of an insulating polymer or reinforced plastic (col 3 L 23-25). The polymer or plastic material can be a polyester (col 3 L 47-48).

Claim Rejections - 35 USC § 103

2. Claims 1, 3-6 and 13-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunten et al (US 6140575) or Errichiello (US 5559677) or Sowash (US 4395609) in view of Clement et al (US 6809254) or Salvi, Jr. (US 5566055).

Gunten discloses an enclosure structure that is used for circuit assembly (132). The enclosure structure (11) shaped to contain the circuit assembly and leaves only a small insulating gap between the edge of the enclosure and the edge of the circuit assembly (col 3 L 13-16 & col 4 L 26-28 & Fig. 1B). Gunten chose polyester material for the enclosure.

Errichiello discloses a molded housing that is used to enclose electronic components on a printed circuit board (col 1 L 22-26).

The molded housing is a three dimensional housing that includes extrusive or indented physical features to accommodate the electronic devices enclosed within the molded housing (col 1 L 37-42 & Fig. 3).

Sowash teaches a plastic housing (10) that is formed over a printed circuit board (12) (Fig. 1). The housing has an indented portion (46) formed on the surface of the printed circuit board (12) (col 2 L 13-15 & Fig. 2).

All three prior art teach the present invention but is silent about the material used for the housing is a polyimide nor do they teach any ratio for the uneven profile.

Clement teaches an enclosure (16a,16b) for housing an electronic device or printed circuit boards (Fig. 1).

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The enclosure is made with polymeric materials such as polyimide, polyetherimide, polyamide, polysulfone and polyester, etc. (col 4 L 42-51).

Salvi also teaches an electronic enclosure which is used to cover electronic devices (col 1 L 14-15). A plastic material such as polyester is used for the enclosure (col 4 L 15-17).

The enclosure is formed by compression molding into an appropriate three-dimensional form to correspond to the dimensions and shapes of the underlying electronic product(s) (col 4 L 21-24).

In view of the prior art teachings, it would have been obvious to fabricate an electronic housing using the plastics (or polymeric materials) as claimed by the applicant because polyimide or those claimed materials are well known materials used as housings for electronic devices. Furthermore, it would also be obvious to form a desired three dimensional casing to accommodate the shape of the underlying device because it is conventional to do so.

Response to Arguments

4. Applicant's arguments filed on March 23rd 2005 have been fully considered but they are not persuasive. The prior art of record have clearly met the inventive concept of the present invention.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cathy Lam
Primary Examiner
Art Unit 1775

Cfl
June 16, 2005